ООО «4ТЕСТ»
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Data Sheet

VIAVI
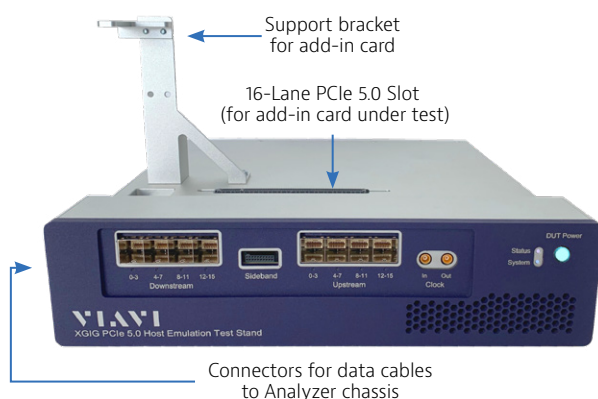## Xgig™ Exerciser Host Test Stand
for PCI Express® 5.0

Provides connectivity and power to a PCIe adapter
card endpoint for testing and qualification

VIAVI Solutions Xgig5P-PCIe5-X16-EH is a test stand
used with the PCIe 5.0 Exerciser operating in host
emulation mode. The Test Stand provides a PCIe CEM
slot for connectivity and power to the adapter card
endpoint Device Under Test (DUT). It supports testing
of Ethernet, RAID controllers, graphics cards and many
other device functions. The Exerciser Host-mode
Test Stand uses high-speed cabling to connect to the
Analysis Platform running the Exerciser function.

The test stand complements the Exerciser and is
intended for developing, debugging and performance
tuning PCIe adapter cards and their controllers and
firmware. Bi-directional PCIe 5.0 protocol data across
16-lanes and at 32Gbps can be transferred through the
test stand between DUT and exerciser platform.

The Test Stand uses high-speed linear signal re-drivers
to buffer the high-speed data signals ensuring clean
signals are delivered to the Analysis Platform chassis
and DUT device.

Support bracket
for add-in card

16-Lane PCIe 5.0 Slot
(for add-in card under test)

Connectors for data cables
to Analyzer chassis

Key Features

- Operates up to 32GTps at PCIe 5.0 data rates
- Downward compatible with PCIe data rates of 2.5, 5.0, 8.0 and 16.0GTps
- Supports link widths up to 16-lanes
- CEM adapter card endpoint DUT devices plug directly into the Test Stand
- Includes cables for Analyzer connection
- Supports Analyzer side-band signal capture and triggering with display in multiple formats
- Data path uses high-speed re-drivers to ensure good signaling
- Supports automatic link tuning for optimum communication and lowest BER
- Modular, replaceable 600W power supply powers Test Stand and DUT
- Supports testing of high-power graphics cards
- LEDs give quick indicators of power and status (cables included)
- Size: Base Pod: 120 x 162 x 30 mm (DxWxH) Works with the VIAVI Xgig5P-PCIe5-X16-PF Analyzer/Exerciser chassis platform
- Supported by VIAVI Xgig™ Analysis tools for test setup, trace capture, protocol evaluation, etc.
- Provides consistent, repeatable capture of link training, equalization negotiation and other information

Application

Working together with the Xgig5P-PCIe5-X16-PF Analyzer/Exerciser chassis, the test stand enables debug and verification of new controller ICs, firmware tuning, and validation of application software.

Setting up the Test Stand for operation is easy. Connect the cables between the Test Stand and the 5P16 system chassis. Next, install the Adapter Card DUT into the Test Stand. Plug in AC power to both the system chassis and Test Stand, and power-on the chassis. The Xgig analysis tools which are loaded onto a Windows PC will give full control of the test bench, enabling the setup, execution and analysis of results.

The adjacent photo shows an example application, while the corresponding block diagram indicates the signal data flow.

In operation, the Exerciser function of the 5P16 system chassis transmits PCIe protocol stream to the Test Stand, which electrically buffers the signals and forwards them to the Device Under Test. Responses transmitted by the DUT are electrically terminated at the Test Stand to insure good signal integrity and are retransmitted to the 5P16 system platform. The analysis function determines if the response is correct as expected. Real-time branching is executed by the Exerciser to maintain an active PCIe link.
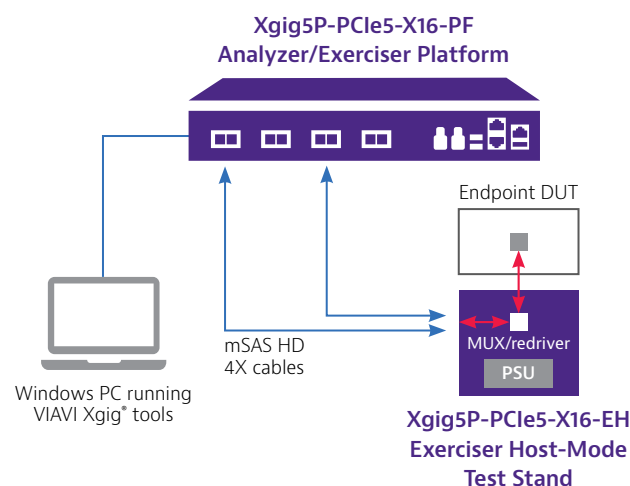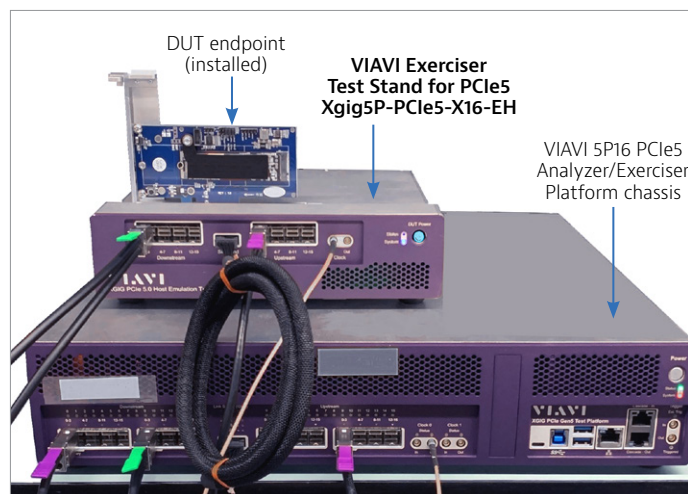
Kit Contents

Item	Description	Qty
1	Xgig5P-PCIe5-X16-EH 16-lane Exerciser Host Test Stand	1
2	Mini SAS HD 4X custom high-performance cables	4
3	Custom 2:1 port merge cables	4
4	Sideband cable (to analyzer)	1
5	Coax cable for optional clock	2
6	AC power cord	1
7	Bracket kit	1
8	Quick Start Guide	1

Ordering Information

Part Number	Description
Xgig5P-PCIe5-X16-EH	Xgig 16-lane Exerciser Host Test Stand for PCIe 5.0
Xgig5P-PCIe5-X16-EH-H1	1-year optional extended hardware warranty

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